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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DEAN, RAYMOND S	

ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/825,952	OHKUBO ET AL.	
	Examiner	Art Unit	
	Raymond S Dean	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 2, 4 - 9, 11 - 16, and 18 - 19* is/are rejected.

7)☒ Claim(s) *3,10,17 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0103,0203,0204*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 – 2, 4, 8 – 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lof, C, G (Personal, Indoor and Mobile Radio Communications, 1998. The Ninth IEEE International Symposium on, Volume: 2, 8-11 Sept. 1998 Pages: 910 - 914 vol.2) in view of Kitade et al. (US 6,590,883).

Regarding Claim 1, Lof teaches a method of controlling a transmission power of a multicast signal that is transmitted from a base station to a plurality of mobile stations through a radio link comprising the step of controlling the transmission power of the multicast signal sent to each of the mobile stations (Section I Fourth Paragraph, Section III lines 17 – 22).

Lof does not specifically teach measuring a value of a received signal quality parameter of a multicast signal received at the mobile stations; transmitting a parameter signal, indicating the received signal quality parameter value, from the mobile stations to the base station through the radio link; receiving the parameter signals from the mobile stations at the base station through the radio link; determining a power control value of

each of the mobile stations based on the received signal quality parameter values of the parameter signals received at the base station; and controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value.

Kitade teaches measuring a value of a received signal quality parameter of signals received at the mobile stations (Column 5 lines 44 – 51); transmitting a parameter signal, indicating the received signal quality parameter value, from the mobile stations to the base station through the radio link (Column 5 lines 50 – 59); receiving the parameter signals from the mobile stations at the base station through the radio link (Column 6 lines 4 – 6); determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received at the base station (Column 6 lines 4 – 9); and controlling the transmission power of the signals, sent to each of the mobile stations, based on the determined power control value (Column 6 lines 4 – 9).

Lof and Kitade both teach a cellular system that uses forward link power control that enables a particular signal to interference ratio (SIR) to be met thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the power control method taught above by Kitade in the cellular system of Lof for the purpose of providing a closed power control method that is power efficient and maintains optimal power levels such that a desired SIR at the mobile stations is consistently met as taught by Kitade.

Regarding Claim 2, Lof teaches a method of controlling a transmission power of a multicast signal that is transmitted from a base station to a plurality of mobile stations through a radio link comprising the step of controlling the transmission power of the multicast signal sent to each of the mobile stations (Section I Fourth Paragraph, Section III lines 17 – 22).

Lof does not specifically teach measuring a value of a received signal quality parameter of a multicast signal received at the mobile stations; transmitting a parameter signal, indicating the received signal quality parameter value, from the mobile stations to the base station through the radio link; receiving the parameter signals from the mobile stations at the base station through the radio link; determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received at the base station; and controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value, wherein, in said determining step, a minimum value of the received signal quality parameter values of the received parameter signals is determined as being the power control value.

Kitade teaches measuring a value of a received signal quality parameter of signals received at the mobile stations (Column 5 lines 44 – 51); transmitting a parameter signal, indicating the received signal quality parameter value, from the mobile stations to the base station through the radio link (Column 5 lines 50 – 59); receiving the parameter signals from the mobile stations at the base station through the radio link (Column 6 lines 4 – 6); determining a power control value of each of the mobile stations

based on the received signal quality parameter values of the parameter signals received at the base station (Column 6 lines 4 – 9); and controlling the transmission power of the signals, sent to each of the mobile stations, based on the determined power control value (Column 6 lines 4 – 9), wherein, in said determining step, a minimum value of the received signal quality parameter values of the received parameter signals is determined as being the power control value (Column 1 lines 8 – 10, one of the goals of a CDMA system is provide minimal power for power efficiency and for minimizing the interference in other cells thus a minimal power control value that corresponds to said minimum power level will be determined).

Lof and Kitade both teach a cellular system that uses forward link power control that enables a particular signal to interference ratio (SIR) to be met thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the power control method taught above by Kitade in the cellular system of Lof for the purpose of providing a closed power control method that is power efficient and maintains optimal power levels such that a desired SIR at the mobile stations is consistently met as taught by Kitade.

Regarding Claim 4, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 1. Lof further teaches a multicast signal (Section I Fourth Paragraph). Kitade further teaches wherein a reception power of the received signal is measured as being the value of the received signal quality parameter in said measuring step (Column 5 lines 50 – 59, the SIR is a measure of the reception power).

Regarding Claim 8, Lof teaches a base station which controls a transmission power of a multicast signal that is transmitted to a plurality of mobile stations through a radio link comprising a transmission power controller controlling the transmission power of the multicast signal (Section I Fourth Paragraph, Section III lines 17 – 22).

Lof does not specifically teach a receiver receiving parameter signals from the mobile stations through the radio link, each parameter signal indicating a value of a received signal quality parameter of the multicast signal received at one of the mobile station; a determination unit determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received by the receiver; and a transmission power controller controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value.

Kitade teaches a receiver receiving parameter signals from the mobile stations through the radio link, each parameter signal indicating a value of a received signal quality parameter of the multicast signal received at one of the mobile station (Column 5 lines 50 – 59, Column 6 lines 4 – 6); a determination unit determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received by the receiver (Column 6 lines 4 – 9); and a transmission power controller controlling the transmission power of the signals, sent to each of the mobile stations, based on the determined power control value (Column 6 lines 4 – 9).

Lof and Kitade both teach a cellular system that uses forward link power control that enables a particular signal to interference ratio (SIR) to be met thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the receiver and determination unit taught above by Kitade in the base station of Lof for the purpose of providing a closed power control method that is power efficient and maintains optimal power levels such that a desired SIR at the mobile stations is consistently met as taught by Kitade.

Regarding Claim 9, Lof teaches a base station which controls a transmission power of a multicast signal that is transmitted to a plurality of mobile stations through a radio link comprising a transmission power controller controlling the transmission power of the multicast signal (Section I Fourth Paragraph, Section III lines 17 – 22).

Lof does not specifically teach a receiver receiving parameter signals from the mobile stations through the radio link, each parameter signal indicating a value of a received signal quality parameter of the multicast signal received at one of the mobile station; a determination unit determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received by the receiver; and a transmission power controller controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value, wherein the determination unit determines a minimum value of the received signal quality parameter values of the received parameter signals as being the power control value.

Kitade teaches a receiver receiving parameter signals from the mobile stations through the radio link, each parameter signal indicating a value of a received signal quality parameter of the multicast signal received at one of the mobile station (Column 5 lines 50 – 59, Column 6 lines 4 – 6); a determination unit determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received by the receiver (Column 6 lines 4 – 9); and a transmission power controller controlling the transmission power of the signals, sent to each of the mobile stations, based on the determined power control value (Column 6 lines 4 – 9), wherein the determination unit determines a minimum value of the received signal quality parameter values of the received parameter signals as being the power control value (Column 1 lines 8 – 10, one of the goals of a CDMA system is provide minimal power for power efficiency and for minimizing the interference in other cells thus a minimal power control value that corresponds to said minimum power level will be determined).

Lof and Kitade both teach a cellular system that uses forward link power control that enables a particular signal to interference ratio (SIR) to be met thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the receiver and determination unit taught above by Kitade in the base station of Lof for the purpose of providing a closed power control method that is power efficient and maintains optimal power levels such that a desired SIR at the mobile stations is consistently met as taught by Kitade.

Regarding Claim 11, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 8. Lof further teaches a multicast signal (Section I Fourth Paragraph). Kitade further teaches wherein each of the mobile stations measures a reception power of the received signal as being the value of the received signal quality parameter (Column 5 lines 50 – 59, the SIR is a measure of the reception power).

3. Claims 5, 6, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lof C, G (Personal, Indoor and Mobile Radio Communications, 1998. The Ninth IEEE International Symposium on, Volume: 2, 8-11 Sept. 1998 Pages: 910 - 914 vol.2) in view of Kitade et al. (US 6,590,883) as applied to Claims 1, 8 above, and further in view of Hamalainen et al. (US 6,289,217 B1).

Regarding Claim 5, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 1. Lof further teaches a multicast signal (Section I Fourth Paragraph).

Lof in view of Kitade does not specifically teach a carrier- to-co channel interference C/I ratio of the received multicast signal that is measured, and a difference between the measured C/I ratio and a reference C/I ratio is measured as being the value of the received signal quality parameter.

Hamalainen teaches a carrier- to-co channel interference C/I ratio of a received signal that is measured, and a difference between the measured C/I ratio and a reference C/I ratio is measured as being the value of the received signal quality parameter (Column 4 lines 65 – 67, Column 5 lines 1 – 5, Column 10 lines 15 – 24, Column 14 lines 47 – 48, the measured C/I ratio is compared to a threshold or reference

C/I ratio to determine if there is a difference from said reference C/I ratio, the radio link is adjusted based on said difference).

Lof in view of Kitade and Hamalainen teach wireless systems that adjust or change a characteristic of a radio link based on the received signal quality thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the C/I ratio taught in Hamalainen in the system of Lof in view of Kitade as an alternative means for determining said received signal quality.

Regarding Claim 6, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 1. Lof in view of Kitade does not specifically teach one of a bit error ratio, a packet error ratio and a slot error ratio of the received multicast signal that is measured as being the value of the received signal quality parameter in said measuring step.

Hamalainen teaches one of a bit error ratio, a packet error ratio and a slot error ratio of the received signal is measured as being the value of the received signal quality parameter in said measuring step (Column 14 lines 47 – 48).

Lof in view of Kitade and Hamalainen teach wireless systems that adjust or change a characteristic of a radio link based on the received signal quality thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bit error ratio taught in Hamalainen in the system of Lof in view of Kitade as an alternative means for determining said received signal quality.

Regarding Claim 12, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 8. Lof further teaches a multicast signal (Section I Fourth Paragraph).

Lof in view of Kitade does not specifically teach a carrier- to-co channel interference C/I ratio of the received multicast signal, and measures difference between the measured C/I ratio and a reference C/I ratio is measured as being the value of the received signal quality parameter.

Hamalainen teaches a carrier- to-co channel interference C/I ratio of a received signal that is measured, and a difference between the measured C/I ratio and a reference C/I ratio is measured as being the value of the received signal quality parameter (Column 4 lines 65 – 67, Column 5 lines 1 – 5, Column 10 lines 15 – 24, Column 14 lines 47 – 48, the measured C/I ratio is compared to a threshold or reference C/I ratio to determine if there is a difference from said reference C/I ratio, the radio link is adjusted based on said difference).

Lof in view of Kitade and Hamalainen teach wireless systems that adjust or change a characteristic of a radio link based on the received signal quality thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the C/I ratio taught in Hamalainen in the system of Lof in view of Kitade as an alternative means for determining said received signal quality.

Regarding Claim 13, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 8. Lof in view of Kitade does not specifically teach each of the mobile stations measuring one of a bit error ratio, a packet error ratio and a slot error ratio of the received multicast signal as being the value of the received signal quality parameter.

Hamalainen teaches a mobile station measuring one of a bit error ratio, a packet error ratio and a slot error ratio of the received multicast signal as being the value of the received signal quality parameter (Figure 6, Column 14 lines 47 – 48).

Lof in view of Kitade and Hamalainen both teach wireless systems that adjust or change a characteristic of a radio link based on the received signal quality thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bit error ratio taught in Hamalainen in the system of Lof in view of Kitade as an alternative means for determining said received signal quality.

4. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lof C, G (Personal, Indoor and Mobile Radio Communications, 1998. The Ninth IEEE International Symposium on, Volume: 2, 8-11 Sept. 1998 Pages: 910 - 914 vol.2) in view of Kitade et al. (US 6,590,883) as applied to Claims 1, 8 above, and further in view of Kaku (6,072,998).

Regarding Claim 7, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 1. Lof further teaches a multicast signal (Section I Fourth Paragraph). Lof in view of Kitade does not specifically teach one of an error correction-bit number and a maximum likelihood value, obtained by decoding of the received multicast signal, is measured as being the value of the received signal quality parameter in said measuring step.

Kaku teaches one of an error correction-bit number and a maximum likelihood value, obtained by decoding of the received signal, is measured as being the value of the received signal quality parameter in said measuring step (Column 5 lines 14 – 38).

Lof in view of Kitade and Kaku teach mobile receivers that measure the quality of a received signal thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the maximum likelihood value taught in Kaku in the mobile units of Lof in view of Kitade as an alternative means for determining said received signal quality.

Regarding Claim 14, Lof in view of Kitade teaches all of the claimed limitations recited in Claim 8. Lof further teaches a multicast signal (Section I Fourth Paragraph). Lof in view of Kitade does not specifically teach each of the mobile stations measuring one of an error-correction-bit number and a maximum likelihood value, obtained by decoding of the received multicast signal, as being the value of the received signal quality parameter.

Kaku teaches a mobile station measuring one of an error-correction-bit number and a maximum likelihood value, obtained by decoding of the received signal, as being the value of the received signal quality parameter (Column 5 lines 14 – 38).

Lof in view of Kitade and Kaku teach mobile receivers that measure the quality of a received signal thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the maximum likelihood value taught in Kaku in the mobile units of Lof in view of Kitade as an alternative means for determining said received signal quality.

5. Claims 15 – 16 and 18 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lof C, G (Personal, Indoor and Mobile Radio Communications, 1998. The Ninth IEEE International Symposium on, Volume: 2, 8-11 Sept. 1998 Pages: 910 - 914 vol.2) in view of Kitade et al. (US 6,590,883) and in further view of Hamalainen et al. (US 6,289,217 B1).

Regarding Claim 15, Lof teaches a method of controlling a transmission power of a multicast signal that is transmitted from a base station to a plurality of mobile stations through a radio link, comprising the steps of: transmitting the multicast signal to the mobile stations through the radio link (Section I Fourth Paragraph).

Lof does not teach receiving an automatic repeat request (ARQ) signal from each of the mobile stations at the base station through the radio link, wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received multicast signal occurs; detecting whether at least one of a plurality of ARQ signals from the mobile stations is received at the base station; outputting a power control signal indicating a result of the ARQ-signal detection; and controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the ARQ-signal detection result indicated by the power control signal.

Kitade teaches receiving a signal from each of the mobile stations at the base station through the radio link (Column 6 lines 4 – 9), detecting whether at least one of a plurality of signals from the mobile stations is received at the base station (Column 6 lines 4 – 9, in order for the base station to detect the transmission power control data said base station must detect the signal comprising said transmission power control

data); outputting a power control signal indicating a result of the signal detection; and controlling the transmission power of the signal, sent to each of the mobile stations, based on the signal detection result indicated by the power control signal (Column 6 lines 4 – 9).

Lof and Kitade both teach a cellular system that uses forward link power control that enables a particular signal to interference ratio (SIR) to be met thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the power control method taught above by Kitade in the cellular system of Lof for the purpose of providing a closed power control method that is power efficient and maintains optimal power levels such that a desired SIR at the mobile stations is consistently met as taught by Kitade.

Lof in view of Kitade does not teach an ARQ signal and wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received multicast signal occurs.

Hamalainen teaches an ARQ signal and wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received signal occurs (Column 9 lines 29 – 35).

Lof in view of Kitade and Hamalainen teach a wireless system that transmits packets of data thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ARQ method taught above in Hamalainen in the wireless system of Lof in view of Kitade for the purpose of ensuring that all of the transmitted data is correctly received by the mobile stations as taught by Hamalainen.

Regarding Claim 16, Lof in view of Kitade and in further view of Hamalainen teaches all of the claimed limitations recited in Claim 15. Lof further teaches a multicast signal (Section I Fourth Paragraph). Kitade further teaches the transmission power of the signal is increased when at least one of the signals is received at the base station, and the transmission power of the signal is decreased (Column 5 lines 50 – 59, Column 6 lines 4 – 9). Hamalainen further teaches ARQ signals and no ARQ signals received at the base station (Column 9 lines 29 – 35, if the decoding is successful there will be no ARQ signals).

Regarding Claim 18, Lof teaches a base station which controls a transmission power of a multicast signal that is transmitted to a plurality of mobile stations through a radio link, comprising a transmitter transmitting the multicast signal to the mobile stations through the radio link (Section I Fourth Paragraph).

Lof does not teach a receiver receiving an automatic repeat request (ARQ) signal from each of the mobile stations through the radio link, wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received multicast signal occurs; a signal counter detecting whether at least one of a plurality of ARQ signals from the mobile stations is received by the receiver, and outputting a power control signal indicating a result of the ARQ-signal detection; and a transmission power controller controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the ARQ-signal detection result indicated by the power control signal of the signal counter unit.

Kitade teaches a receiver receiving a signal from each of the mobile stations at the base station through the radio link (Column 6 lines 4 – 9), a signal counter detecting whether at least one of a plurality of signals from the mobile stations is received by the receiver (Column 6 lines 4 – 9, in order for the base station to detect the transmission power control data said base station must detect the signal comprising said transmission power control data), and outputting a power control signal indicating a result of the signal detection; and a transmission power controller controlling the transmission power of the signal, sent to each of the mobile stations, based on the signal detection result indicated by the power control signal of the signal counter unit (Column 6 lines 4 – 9).

Lof and Kitade both teach a cellular system that uses forward link power control that enables a particular signal to interference ratio (SIR) to be met thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the receiver, signal counter, and transmission power controller taught above by Kitade in the base station of Lof for the purpose of providing a closed power control method that is power efficient and maintains optimal power levels such that a desired SIR at the mobile stations is consistently met as taught by Kitade.

Lof in view of Kitade does not teach an ARQ signal and wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received multicast signal occurs.

Hamalainen teaches an ARQ signal and wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received signal occurs (Column 9 lines 29 – 35).

Lof in view of Kitade and Hamalainen teach a wireless system that transmits packets of data thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ARQ method taught above in Hamalainen in the wireless system of Lof in view of Kitade for the purpose of ensuring that all of the transmitted data is correctly received by the mobile stations as taught by Hamalainen.

Regarding Claim 19, Lof in view of Kitade and in further view of Hamalainen teaches all of the claimed limitations recited in Claim 18. Lof further teaches a multicast signal (Section I Fourth Paragraph). Kitade further teaches the transmission power of the signal is increased when at least one of the signals is received at the receiver, and the transmission power of the signal is decreased (Column 5 lines 50 – 59, Column 6 lines 4 – 9). Hamalainen further teaches ARQ signals and no ARQ signals received by the receiver (Column 9 lines 29 – 35, if the decoding is successful there will be no ARQ signals).

Allowable Subject Matter

6. Claims 3, 10, 17, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding Claims 3 and 10, Lof in view of Kitade teaches a determination of a power control value based on the received signal quality parameter values of the parameter signals received at the base station but the prior art of record fails to specifically show received signal quality parameter values that are rearranged into a sequence of the parameter values in a predetermined order, and one of the parameter values in the rearranged sequence that corresponds to a predetermined ratio of the entire mobile stations is determined as being the power control value.

Regarding Claims 17 and 20, Lof in view of Kitade and in further view of Hamalainen teaches a wireless system with a base station that adjusts it's transmit power when it detects an ARQ signal but the prior art of record fails to specifically show a detecting step wherein it is detected whether a ratio of the number of the received ARQ signals to the number of the mobile stations exceeds a predetermined ratio, and, in said controlling step, the transmission power of the multicast signal is increased when the ratio of the ARQ-signal number exceeds the predetermined ratio, and the transmission power of the multicast signal is decreased when the ratio of the ARQ-signal number does not exceed the predetermined ratio.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S Dean whose telephone number is 703-305-8998. The examiner can normally be reached on 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond S. Dean
November 23, 2004

NAY MAUNG
SUPERVISORY PATENT EXAMINER